

REMARKS

Claims 2-27, 29-34, 36-41, and 43-68 are currently pending in the application; with claims 2, 5, 7, 29, 30, 32, 34, 36, 37, 39, 41, 44, 47, and 50 being independent. In light of the remarks presented herein, Applicants respectfully request favorable consideration and earnestly seek timely allowance of the pending claims.

Claim Rejections – 35 U.S.C. §102

The Examiner rejected claims 2-27 under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,835,544 to Winterburn (“Winterburn”). Applicants submit the Examiner has failed to establish a *prima facie* case of anticipation and traverse this rejection.

Regarding claims 2, 5, and 7, Winterburn merely discloses a printer which prints both text and a marking code on a page, and a reader which reads the marking code. (See Abstract.) Specifically, Winterburn discloses a marking code which can represent discrete digits 1-9 by position about a circle C. The nine points are defined on the circumference of the circle at 40° spacings. The digits 1-9 are coded by a symbol placed in one of the nine predetermined positions along the circle. The digit zero is represented by the absence of a dot. (See col. 1, lines 48-57; Fig. 1.)

Winterburn further discloses arranging circles into an array to allow the representation of a five digit number. The position of the array of circles is based upon a reference point R1, along with a co-related dot R2. A five digit number is coded by taking the respective digits and placing dots on the circumference of the five circles C1 to C5 to represent those digits. (See col. 1, lines 58-64; Fig. 2; col. 3, lines 3-5.)

In order to properly encode information, Winterburn discloses utilizing tables stored in

computer memory holding the positions for which dots are to be printed. The encoding is performed in three stages:

- 1) a record of position of the reference dot R1 relative to the edges of the paper is stored;
- 2) the dot R2 is defined relative to reference dot R1 by the geometry of the arrangement shown in Fig. 2 (18.124 mm to the right of dot R1); and
- 3) the computer holds in a look-up table the positions of the centers of the circles relative to reference dot R1.

(See col. 2, line 62 – col. 3, line 5.)

The nearest pixel values of the displacements of the centers of the circles relative to R1 are stored in pixels (col. 3, lines 8-22). Then, for each circle, the individual dot positions can be related to the center of the circle by using sine and cosine functions to provide the proper offsets (col. 3, lines 23-37). Winterburn further discloses:

[t]hus any given dot position can be calculated by adding the offset of the dot relative to the circle centre and the displacement of the circle centre relative to the reference point R1 on the paper. The points R1 and R2 are always printed

(col. 3, lines 40-45) (emphasis added).

However, Winterburn fails to disclose, at least, “a grid formation comprising a first plurality of grid points ... each grid point being assigned at least one mark and representing a value by way of the relative location of said at least one mark,” as recited in claims 2, 5, and 7.

Winterburn is distinguished by the present invention by only utilizing one reference dot R1 to compute the positions of the dots placed around the five circles. The method utilized by

Winterburn clearly discloses the centers of each circle C1-C5 are not the reference points which are used for the encoding of information. The center points, each having positions described relative to reference point R1 (col. 3, lines 4-5), are merely intermediate locations used in the calculations for determining dot positions.

Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 2, 5, and 7.

Claims 3, 4, 15-27 depend from claim 2 and are at least allowable for the reasons described above for allowable claim 2; claims 6, 55, 57, 59, 61, and 63 depend from claim 5 and are at least allowable for the reasons described above for allowable claim 5; and claims 8-14, 56, 58, 60, and 62 depend from claim 7 and are at least allowable for the reasons described above for allowable claim 7.

The Examiner rejected claims 29-34, 36-41, and 43-68 under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 3,983,366 to Gunn ("Gunn"). Applicants submit the Examiner has failed to establish a *prima facie* case of anticipation and traverse this rejection.

Gunn merely discloses an article sorting apparatus and method where articles bearing a manually marked code in a grid or code are locatable by one or more guide elements which may be separate and distinct from the manually marked code (Abstract). Specifically Gunn discloses a postage stamp carrying a code grid 11. Code grid 11 comprises a plurality of vertical columns which have ten blocks each for numerals 0-9 and are in sequence (col. 2, lines 51-62; Fig. 1). The code is manually marked by a user entering dots or other markings in the blocks. A number, such as a zip code, is thus encoded by the placement of a dot within a specific cell, or code

block, associated with a column. As long as the major position of a marking is within a desired code block, it will be registered for that block (See col. 3, lines 42-44.)

However, Gunn fails to disclose, at least, “detecting the grid points in the subset ... associating each detected mark with one of the detected grid points,” as recited in claims 29, 30, 32, and 34; “means for detecting the grid points in the subset ... means for associating each detected mark with one of the detected grid points,” as recited in claims 36, 37, 39, and 41; and “encoding each of said values in a corresponding symbol so as to generate a set of symbols that vary in accordance with said values, the value of each symbol being represented by the location of at least one mark relative to an associated nominal position,” recited in claims 44, 47, and 50. (emphasis added)

Gunn is distinguished by the present invention as Gunn’s markings are not associated with detected grid points, but are associated by placement within a cell defined by a grid.

Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claims 29, 30, 32, 34, 36, 37, 39, 41, 44, 47, and 50.

Claims 31, 65, 33, 38, 66, and 40 depend from independent claims 29, 30, 32, 36, 37, and 39, respectively, and are at least allowable for the reasons described above for allowable claims 29, 30, 32, 36, and 47; claims 43, 45, 46, and 53 and 63 depend from claim 44 and are at least allowable for the reasons described above for allowable claim 44; claims 48, 49, and 67 depend from claim 47 and are at least allowable for the reasons described above for allowable claim 47; and claims 51, 52, 54, and 68 depend from claim 50 and are at least allowable for the reasons described above for allowable claim 50.

Conclusion


In view of the above amendments and remarks, this application appears to be in condition for allowance and the Examiner is, therefore, requested to reexamine the application and pass the claims to issue.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at telephone number (703) 205-8000, which is located in the Washington, DC area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.


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Respectfully submitted,

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